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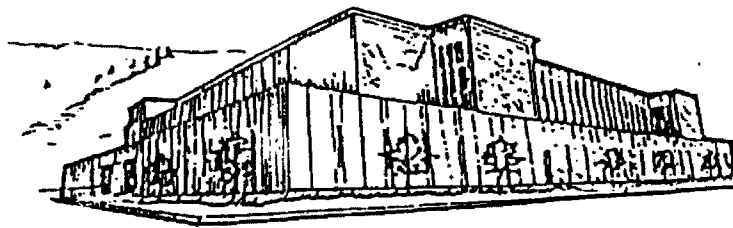
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NATIVE AMERICAN DISCOURSE: AN ANALYSIS OF TWENTY
O'OTHHAM NARRATIVE FRAGMENTS

by

Robert O. Nickol

B.S., College of Great Falls, 1990

Presented in partial fulfillment of
the requirements for the degree of

Master of Arts

UNIVERSITY OF MONTANA

1994

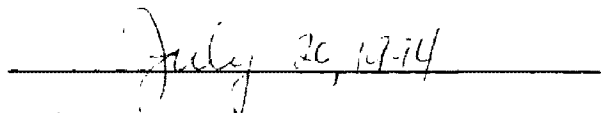
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Nickol, Robert O., M.A., June, 1994

Anthropology

Native American Discourse: An Analysis of Twenty O'othham Narrative Fragments (92 pp.)

Director: Katherine M. Weist *KMW*

This study is concerned with the interpretation of Native American literature. Specifically, this study is concerned with resolving a conflict between Dell Hymes and Julian Rice. Hymes (1981:32) contends that elementary particles represent the regulatory principle of Native American narrative. Rice (1992:132) does not believe that elementary particles represent the regulatory principle.

This study describes Hymes' and Rice's opposing perception of elementary particles, line structure, and verse structure. This study constructs a method from their perceptions to objectively test the likelihood of elementary particles representing the regulatory principle of Native American narrative. This study uses Hymes' (1986) ethnospecific numerology, and his prediction of four line verses appearing in Southwestern cultures.

The bulk of this study consists in an individual analysis of O'othham narrative fragments. Each fragment is analyzed morpheme by morpheme. Each morpheme is given a syntactic category and a English gloss. The morphemes are grouped into lines, and the lines are grouped into verses. The construction of each verse is accounted for numerically. The numerical totals are then statistically analyzed to determine if four line verses occur significantly.

Four line verses were found to occur significantly using a 90% confidence interval. In addition, a test for goodness of fit revealed that the different section types were not distributed evenly.

In conclusion, this thesis believes that elementary particles do represent the regulatory principle but that too little is known about this principle for its wide application to the interpretation of Native American literature.

TABLE OF CONTENTS

Acknowledgments	ii
Abstract	iii
List of Examples	vi
List of Tables	vi
Chapter	Page
I. INTRODUCTION.....	1
Controversy.....	2
Statement of Problem.....	2
II. THEORY.....	5
Elementary Particles.....	5
Line Structure.....	8
Verse Structure.....	11
Speech Acts.....	14
III. METHOD.....	15
Marker definition.....	18
O'othham Markers.....	19
Unmarked.....	21
Line Definition.....	24
Narrative Choice.....	26
Quantitative/Qualitative Analysis.....	26
IV. AN ANALYSIS OF 20 NARRATIVE FRAGMENTS.....	28
Notational Conventions.....	28
Fragment 1.....	29
Fragment 2.....	31
Fragment 3.....	34
Fragment 4.....	36
Fragment 5.....	39
Fragment 6.....	42
Fragment 7.....	44
Fragment 8.....	46
Fragment 9.....	49
Fragment 10.....	52
Fragment 11.....	54
Fragment 12.....	57
Fragment 13.....	59
Fragment 14.....	62
Fragment 15.....	65
Fragment 16.....	67
Fragment 17.....	70
Fragment 18.....	73
Fragment 19.....	76
Fragment 20.....	78

V.	RESULTS.....	82
	Testing for Goodness of Fit.....	85
VI.	CONCLUSION.....	89
	Summary.....	89
	Results.....	91
	Implications.....	91
	Bibliography.....	93
	Appendixes.....	96
	Map of Prehistoric Hohokam.....	97
	Map of Historic O'othham.....	98
	Map of Present Day O'othham.....	99

LIST OF EXAMPLES

Example	Page
1. Form Meaning Covariation.....	3
2. Particle Marking.....	6
3. Lakota Particles.....	7
4. Verb Placement.....	8
5. Particle Initiality.....	10
6. O'othham Morphemes.....	18
7. O'othham Adverbial Phrases.....	20
8. O'othham Interjections.....	21
9. O'othham Postpositions.....	22
10. O'othham Auxiliary Position.....	23

LIST OF TABLES

Table	Page
1. Tonkawa Structure.....	13
2. Clackamas Structure.....	13
3. Wasco Structure.....	14
4. Sections and Lines in Fragments.....	82
5. Frequency of Section Types.....	84
6. Test of Goodness of Fit.....	86
7. Test of Goodness of Fit.....	87

CHAPTER I

INTRODUCTION

Commonly poetry is governed by regulatory principles. In the English tradition, poetry consists of one stressed or accented syllable and one or more unstressed syllables. For example, in the following line of verse

There lived / a wife / at Ush / er's Well

there are four metrical feet. The unit into which the line is divided is the interval of time that elapses between stressed syllables. The rhythm of the alternation of stressed and unstressed syllables creates textural structure and meaning in English poetry. This rhythm of syllables could be called the regulatory principle of English poetry.

In this thesis, I'm examining the possibility of a regulatory principle in Native American literature consisting of elementary particles. Specifically, I'm examining a quantity of Native American narratives collected during the 1930s by linguistic anthropologists. Dell Hymes (1981) proposes that Native American narratives are organized by elementary particles. Hymes feels that this principle can be observed and renewed by carefully observing the transcribed material.

Controversy

Dell Hymes' work has been catalytic in convincing others that hundreds of texts of Native American narrative prose are, in fact, poetry. Hymes (1981) contended that elementary particles earlier dismissed as trivia instead represented the regulatory principle of Native American poetry. Hymes demonstrated how these particles marked lines, verses, and stanzas. Hymes created several highly intricate verse dramas from earlier transcriptions of Native American narratives.

In contrast to Hymes, Julian Rice (1992) after examining a sizable amount of Native American narrative did not believe that elementary particles were verse markers. Rice vigorously questioned whether Hymes had truly found poetic markers in his poetic reorganizations of Native American literature. Instead, Rice felt that the patterns Hymes discovered were of his own creation.

Statement of Problem

The controversy between Rice and Hymes is a real problem for linguistic anthropology, for the controversy not only effects the outward structuring of narratives but effects how the narrative is interpreted. For instance:

In the Tonkawa text, the ground plan of two- and four part alternation sometimes comprises a relationship of three against one this is true of the four pairs of stanzas that make up Act IV ... In each case, the (a) verse has three lines the (b) verse has one. The relationship appears again in Act VIII of part two and in the myth as a whole. All these instances could be taken to involve a local peripety of the action (Dell Hymes 1986:23).

In the following example, the first stanza of Act IV is presented in two languages with the elementary particle marker underlined.

1. Tonkawa (Hymes 1986:30)

'E:nik Ha:csokonayla teca 'a:y 'ik ha:nata

yanicicxil'an

"Matan 'o:s'ow! yacox 'ante:la nawe:l" noklakno'o

'E:l'ok kapay 'e:noklakno'o

Translation

And then Coyote went off from the place and
galloping

"Quick! This camp is on fire!" the say he said

When he did, they say, nothing happened

Since Rice (1992) does not accept that elementary particles represent the regulatory principle of Native American narratives, Rice's interpretation of a myth maybe very different from Hymes as he does not factor in elementary particles like Hymes.

How is anthropology going to understand the content of these important narratives when a basic disagreement exists over how to begin this analysis? This is the question to which the hypothesis of this thesis is directed. I hypothesize that the likelihood of a narrative being poetry or prose is something that can be objectively tested and measured by analyzing Pima and Papago or O'othan narratives.

CHAPTER II

THEORY

Theoretically, Hymes (1981) and Rice (1992) present diametrically opposing views. The fulcrum of the conflict between Rice and Hymes involves elementary particles. According to Hymes, elementary particles present in prose transcriptions of Native American narrative can be used to restructure these narratives into poetry.

In contrast to Hymes, Rice (ibid) does not believe that elementary particles represented the regulatory principle of Native American poetry. Rice thinks that Hymes has exaggerated the structural role of elementary particles. Instead, Rice describes these particles as being in free variation.

Elementary Particles

According to Hymes (1981) elementary particle phrasing creates a system of hierarchical discourse markers.

The recurrent initial particles that have annoyed so many linguists, ethnographers, and readers by their monotony---'Now,' 'Then,' 'Now then,' 'Now again,' and the like---turn out to be far from the tedious trivia of primitive minds. They are markers of measure (Hymes 1981:355).

In the following example the underlined particle represents poetic restructuring of text using elementary particles.

2. Tonkawa (Hymes 1986:29)

'E:kla Ha:csokonayla hakxonat

"Hecu: 'e:kwa?" noklakno'o.

Translation:

Then Coyote went in,

"What is it?" they say he said

'E:kla kwa:nwa: 'ala,

"Te:w'an yacox' antanate:la tickan'a:ka kapa:we,"
noklakno'o.

"Hecocxo:kla wetoxano'o," noklakni'o.

Translation:

Then that woman,

"Here all the people in this camp are gone," they say she
said.

"A fearsome being destroyed them," they say she said.

In contrast to Hymes, Rice (1992) does not accept that elementary particles form verses in Native American narrative.

I have mentioned that s'ke and ke' alternate as quotative endings in some stories, while s'ke is used more consistently in others. However, I do not think that even Deloria's sixty-four texts show a 'semantic pattern' of the sort Hymes often draws. Rather, the Deloria texts reveal a range of conventions available to narrators to use in individual tellings (Rice 1992:136).

In the following example, Deloria's transcription of a Lakota myth demonstrates the use of the quotative ending s'ke.

3. Lakota (Deloria 1932, quoted by Rice 1992:108)

Wana nunwan ya canke cankahu akanl yankin na nazute kin
el etunwan yanka yunkan heciyatanhan ite s'ke.

Translation:

As she sat on his back he swam along, there was a face!
This man what is known as double-face it is said.

Line Structure

According to Hymes (1981) verbs determine basic line structure.

To be sure, lines usually contain or consist of verb, and a segmentation of narratives in accordance with the principle of one verb, one line, would go far toward approximating the true pattern (Hymes 1981:30).

In the following Clackamas example, the importance of the verb is evident in Hymes' translation. Each verb is underlined. At this point, I ask the reader to take note of the agglutinating structure of the Clackamas language, for the advantages of working with the more isolating O'othham language are in evidence.

4. Clackamas (Hymes 1981:313)

Gagulxam wakaq:

She told her mother

"Iyamulxam,

"I told you,

'Dangi t'ug t'ug'

'Something is dripping.'

"Imnulxam,

"You told me,

'Ak'waSka, SXluym.'

'Shush, they are "going."'

"NiyamtLEam,

"I had told you,

'Dangi Xluwida wiCIm ayagilal.'

'Something is different about my uncle's water.

'Alubaya

'She would "go out"

tL'a iLEkala-diwi alaXunuda.'

with a sound just like a man she would

"Amnulxama,

"You would tell me,

'Ak'waSka!'"

'Shush!'"

NagECaX.

She wept.

Another important aspect of Hymes (1986) perception of line construction is the principle of discourse particle initiality. In the following example, the particle e:kla occurs phrase initially in all three of the Tonkawa verse arrangements. Not represented here are the complete Tonkawa texts of Hymes' (ibed) in which e:kla and other similar particles begin the majority of lines that begin verses.

In the following example, an excerpt from Hymes' (ibed) article is presented to demonstrate particle initiality.

5. Tonkawa (ibed:1986:30)

'E:kla Ha:csokonaylak kwa:nenoxlak nesta: 'e:klakno'o

Translation:

Then, they say, they made Coyote many a beautiful girl

'E:kla pas'e:no:la Kwa:nwa 'a:lak,

"Yacox' ankalake'e e:k ha:na:tewo's," noklakno'o

Ha;csoknala.

Translation:

Then, after staying a while, to that woman,

"I'll go to the other camp over yonder," they say he said,
Coyote.

'E:kla kwa:nwa 'a:la,
 "We:l'a!" noklakno'o,
 "Ha:napew!" noklakno'o

Translation:

Then that woman,
 "Oh!" they say she said.
 "Don't go!" they say she said.

The last aspect of Hymes' perception of line construction involves Hymes' subjective judgment. According to Hymes' (ibed:21) Tonkawa article lines are relative to the overall pattern of the narrative.

Verse Structure

According to Hymes (ibed:22) where obvious initial markers distinguish segments, they usually distinguish verses. Moreover, Hymes adds that the numbering of lines per verse is ethnospecific.

It is important to notice that the pairs of pattern numbers, whether three and five, as in Chinookan, or two and four, as in Tonkawa, does not exhaust the kinds of relationships within a text (Hymes 1986:22).

Overall, Hymes (1981) feels that his system of phrasing will work with other Native American languages. In this thesis, I am applying Hymes to O'othham.

The following tables graphically illustrate Hymes' perception of the structure inherent but not represented in earlier prose transcriptions of Native American narratives. According to Hymes (1981), elementary particle phrasing creates a system of hierarchical discourse markers. On the lowest level, elementary particles mark verses. On the higher levels, elementary particles mark stanzas and scenes.

Since this thesis is not directly concerned with whether or not Native American narratives contain stanzas and scenes, the readers should direct thier attention toward the table columns called "verses" and "number of lines." The first table comes from Hymes' (1986) study of Tonkawa poetics. Since O'othham narratives and Tonkawa narratives are both Southwestern in origin, I am testing to see if significant numbers of two and four line verse occur when Hymes' numerology is applied to O'othham. In addition, I am testing whether numerology can be applied to any narrative tradition.

Table I. Tonkawa Poetics (Hymes 1986)

acts	stanzas	verses	number of lines
1	A	2	2, 2
	B	1	4
	C	2	2, 3
	D	2	3, 2
2	A	2	3, 2
	B	1	6
	C	2	4, 2
	D	2	2, 2

Table II. Clackamas Narrative (Hymes 1981)

scene	stanzas	verses	number of lines
1	A	1	2
	B	3	2, 4, 1
	C	3	2, 3, 1
2	D	1	2
	E	3	1, 3, 1

Table III. Wasco Text (Hymes 1980)

scene	stanzas	verses	number of lines
1	A	1	3
	B	1	3
	C	1	4
2	D	1	6
3	E	1	3

Speech Acts

In a final theoretical note, these narratives being oral performances have certain structures that must be dealt with outside of the controversy between Rice and Hymes. These structures are a type of speech act that usually occurs at the beginning of a narrative.

Stephen Levinson (1983) calls these speech acts pre-sequencing events. He further defines several types pre-requests, pre-arrangements, pre-announcements and turn locations. In general, these pragmatic structures of communication serve to establish and maintain contact as well as provide pragmatic transition.

CHAPTER III

METHOD

The hypothesis of this thesis states that the likelihood of a narrative having a poetic structure using elementary particles is a testable proposition. The method that I will use to test this hypothesis is constructed of the theories of Hymes and Rice. My hope is that this test will help resolve the stalemate between Rice and Hymes and allow a more thorough understanding of the content and structure of Native American literature.

In order to conduct this test, some Native American literature is needed. Considering the difficulty in gaining command of another language, the subject of this study should be confined to a single language. Although drawing inferences about the whole of Native American literature from the data gained by the study of a single Native American language may be somewhat inaccurate, the inferences are not necessarily wrong. According to Hymes the spoken languages of preliterate peoples and of illiterate English speakers bear resemblances in their use of elementary particles.

And it is also worth noting that speakers of English, particularly if they are illiterate, very often begin each sentence of a long

utterance with a conjunction or introductory particle like 'and,' 'then,' 'now,' or 'well.' (1986:46).

In preparation for this study, I needed a language which had been the subject of comprehensive study. In order to analyze this I needed a good dictionary, grammar, and a collection of narratives. In addition, this study required an extensive ethnology of the social and cultural basis of the language, because it is essential that we know at least something of the culture's numerology, if not more of the culture's world view, in order to develop an understanding of the grammatical categories of this subject. The language selected would be more appealing for this and future studies if the language and culture were living, because a living culture offers the opportunity to observe prosodic and pause phrasing in spoken performances as well as semantic and pragmatic categories. From a historic and archaeological perspective, the ideal subject for this study would be a culture that has remained in one geographical location.

From a purely linguistic perspective, certain Native American languages are more difficult to work with in some aspects than others. Since this thesis depends upon a clear delineation of word class or category, the Native American languages that have the highest degree of agglutination are the most difficult languages to work with.

All things considered, the O'othham language of southern Arizona appears to be a practical choice. First, a native O'othham, trained by Kroeber, made it his life's work to collect narratives of the O'othham. These nearly fifty narratives transcribed by Juan Dolores were again made more accessible by Dean and Lucile Saxton (1973) The Legends and Lore of the Papago and Pima Indians. In addition, the Saxtons published two editions of dictionaries of the O'othham language in 1969 and 1989. Donald Bahr published bilingual O'othham material in 1975 and 1981. In terms of a written grammar, Ofelia Zepeda (1983) and Juan Dolores (1913) have worked to compile a grammar of this language. Also, Madeline Mathiot (1973) and Kenneth Hale (1965) have made extensive studies of the structure of the O'othham language.

Second, the ethnological resources for the study of the O'othham language are significant. For example, Ruth Underhill compiled thick volumes on O'othham social organization in 1939 and on O'othham religion in 1946. Francis Densmore (1929) wrote an entire Bureau of Ethnology Bulletin on O'othham music. Frank Russell (1908) wrote a large section of a Bureau of Ethnology annual report on O'othham culture.

Third, according to Bahr (1975) the O'othham language is a living language with nearly 15,000 speakers. The O'othham may have lived in their Sonoran desert home since

before the time of the archaeological culture called the "Hohokam" (see appendices). O'othham culture has historically incorporated many enduring features being adapted to a climate of extremes.

Finally, the O'othham language is suited to this study because it is one of the least agglutinating of Native American languages.

In contrast to the Clackamas and Tonkawa languages presented earlier, a string of O'othham morphemes looks like this:

6. O'othham (Saxtons 1973:1)

Heki huh, sh g jewed pi koi e nahto.

"Long ago, they say, when the earth was not yet finished."

Marker Definition

Another serious methodological problem is the clear and unequivocal definition of an elementary particle verse or variation marker. One salient feature is that these markers tend to be set apart from the other particles. For example, the quotative endings s'ke and ke' used by Deloria (1932) are distant from the rest of the text. In the same way, interjections can function as possible verse or line markers. For example, Hymes creates a line

of verse and begins a verse with a single word punctuated by an exclamation point. The fourth example of this text, Hymes' (1981) Clackamas translation has the word "Shush!" as the beginning and end of verse seven.

According to Woodbury (1986) these section-indicating particle markers introduce syntactic units. Woodbury translates these particles from Yupik Eskimo, and cites some common verse particles: "then" "at one/some time" "now" and "however" are common verse markers. Woodbury adds that these markers such as "then again" address audience expectation. Finally, Woodbury cites these interjections as common verse markers: "Oh" "how many" "how much" and "dear me."

Virginia Hymes (1986) describes a similar set of particles in Sahaptin. She translates these particles as "now" "then." Her translations are similar to the adverbial type of verse marker described by Woodbury and Hymes.

O'othham Markers

After having identified markers generally, the next problem is how to identify these markers as they appear in the O'othham language. This problem divides into two more problems. What is an O'othham marker? What is not an O'othham marker?

On the largest level verse or variation markers are adverbial phrases, consisting of two separate words and translate as adverbs or adverbial phrases.

7. O'othham Adverbial Phrases (Saxtons 1973:389-441)

<u>a'agko</u>	adv	"in a secret place"
<u>ha hekaj</u>	adv	"right away"
<u>heki huh</u>	adv	"already long ago"

Another important type of discourse marker involves a slight alteration of word structure.

Hymes shows how the Clackamas narrator uses wa- and a- to indicate the bear's state of mind even when her actions are not overt. For attentiveness of this sort all scholars in the field must acknowledge their debt to Hymes. (Rice 1992:131).

Markers of the type that Rice and Hymes acknowledge may have affects on the psychology of verse construction. Meaning may exist in the form as well as the content of an expression. In the third fragment, in the next chapter, I discuss how conjunctions alternate to show whether a line connects to the previous line.

O'othham markers are likely to be interjections. In the following example, common O'othham interjections are presented.

8. O'othham Interjections (Saxtons 1973:389-441)

O'othham	function	gloss
<u>a</u>	surprise	"Oh!"
<u>neh</u>	conclusion	"So!, See!"

Otherwise, O'othham markers are simply adverbs, modifying verbs and adverbs in a wide variety of ways. For example, there are adverbs of time, place, manner, degree, order, affirmation, and negation.

Unmarked

After examining what is an O'othham marker, we must now turn our attention to examining what is not an O'othham marker. Because many O'othham words vary in category and require special attention to determine their function, the need for this examination is clearly present.

First, many O'othham words function as both adverbs and postpositions. The O'othham language does not have prepositions; instead it uses postpositions. These postpositions have the same function as prepositions but they follow rather than precede their objects. Postpositional phrases generally begin with a specifier and end with a postposition.

9. O'othham Postposition (Zepeda 1983:46)

<u>'Uwi</u>	<u>'o</u>	<u>'am</u>	<u>ki:</u>
noun	auxiliary	specifier	noun
"woman	is/was	in, here	house

<u>ba:so</u>	<u>ke:k</u>
postposition	verb
front	standing"

"The woman is standing in front of the house."

Other postpositional phrases:

<u>'am ki: webig</u>	"behind the house"
<u>'an mi:sa da:m</u>	"on top of the table"
<u>'am mi:sa weco</u>	"under the table"
<u>'ab Huan wui</u>	"toward John"

In addition to words that function as both postpositions and markers, another difficulty is distinguishing between auxiliaries and markers, but in the O'othham language the auxiliary occurs in second position in the sentence. In cases where it appears that the auxiliary occurs further into the sentence, it is because that sentence begins with a noun that is preceded by a determiner and so constitutes one unit.

In the following example, the auxiliary remains in second position despite the movement of the other parts of the sentence.

10. O'othham Auxiliary Position (Zepeda 1983:9)

<u>'I:da 'o'dham</u>	<u>'o</u>	<u>pi</u>	<u>neok</u>
subject	aux	neg	verb

"This person is/was not speaking."

<u>Pi</u>	<u>'o</u>	<u>neok</u>	<u>'i:da 'o'dham</u>
neg	aux	verb	subject

"This person is/was not speaking."

According to Mathiot (1983) the O'othham language divides into seven classes of major words: nouns, verbs, modifiers (adjective and adverbs), cardinal numerals, postpositions, personal pronouns, and locative pronouns.

In addition to the major words, Mathiot adds:

Five classes of auxiliaries can be distinguished by their respective inflections: the two sets of demonstrative auxiliaries---ihtha (sg.), ihtham (pl.) 'this, these' and hegai (sg.), hegam (pl.) 'that, those'; the locative auxiliaries; three indefinite quantifiers (ha 'a little', hema 'a', and hahi 'a few'); the two indefinite manner qualifiers (ha-b 'in a certain familiar way', ha-s 'in a certain unfamiliar way'). (Mathiot 1983:201).

Line

A crucial methodological problem is line definition. Hymes (1986) offers his general principle of one verb per line. His principle of line-initiality of discourse markers narrows the problem. Zepeda's (1983) rule that the auxiliary occurs in second position in Papago or O'othham grammar offers some assistance.

Since Hymes (1981) did not work with actual oral narratives but with transcribed materials, the text used by this analysis must be given primacy over the possibility of pause or prosodic determinants of line boundaries that could only be imagined.

However, the text must be suspect when a particle that is usually a marker occurs sentence internally. In the following example, the adverbial phrase am huh occurs within line two, by the punctuation used by the Saxtons.

11. Saxtons' Punctuation (1973:67)

1) k	wo	ha	nei
conjunction	future	pronoun	verb
and	marker	them	sing
g	e-	hajuni.	
definite	reflexive	noun	
article	itself	kinship term	

2) Pi	ant	<u>am</u> <u>huh</u>
adverb	pronoun	adverbial phrase
not	I	way over there
wo	hih	
future	verb	
marker	move	

Sally McLendon (1981) offers general guidelines that could be used to modify the line structure when this modification seems appropriate. From McLendon's article I have formed the following rules.

- 1) consider the relative location of the phrase within the line
- 2) its degree and type of syntactic relatedness
- 3) the communicative importance within the sentence

Although the Saxtons (1973) do not discuss their criteria for line determination, I can garner several rules that they normally followed from my work with this text. First, the sentences are normally complete and tend to be compound. Second, similar to Bahr (1975) and Underhill (1938), the Saxtons normally place the verb last in the clause.

Narrative

A number of other methodological problems exist. First, to analyze a single narrative and make general assumptions based upon this narrative could be misleading, for each narrative is a unique construction. Second, to analyze twenty entire narratives would be a huge undertaking, for narratives are normally relatively long. So we must find a way to analyze a number of narratives while keeping the task proportional.

In order to accomplish this, the narratives must be broken into fragments. These narrative fragments need to be taken from the same place from each narrative in order to avoid selective bias. Also, if the fragments are taken from the beginning of each narrative, they will all have a clear starting place. Lastly, the fragments need to be large enough to measure up to six lines because in the tables of poetic structure presented earlier the number of lines per verse varies from one to six.

Finally, for purposes of statistical accuracy, fragments will not stop at six lines if a section of two, three, four, or five can be satisfactorily completed.

Quantitative/Qualitative Analysis

In making any quantitative analysis, we must accept that this analysis can only be made on the accuracy of a qualitative analysis of each narrative fragment. However, cultural numerology is considerably important to this thesis. According to Hymes (1981) the Clackamas verse cultural numbers are five and three. But for the Tonkawa culture, Hymes (1986) describes a pattern of two and four lines to a verse, which he claims is typical of Southwestern cultures. Since O'othham is a Southwestern culture, the pattern of two and four is to be expected or predicted by this study, if Hymes is accurate on this point.

In addition, the number four is spiritually active in O'othham culture (Underhill 1946). For example, the ritualistic orations of O'othham involve shamanistic speeches and choreographed ceremonies based on the number four.

Lastly, this study is looking for a beauty or symmetry of form within these fragments. For example, if the sections are distributed in a hodgepodge manner, than it would be less likely that these sections are part of artistic creations. If many of these fragments do not have definable sections, than it would be less likely that these fragments are part of an artistic creation.

CHAPTER IV

ANALYSIS OF TWENTY NARRATIVE FRAGMENTS

In this chapter, the first twenty narratives presented by Saxton and Saxton (1973) are fragmented and analyzed. The fragments are analyzed morpheme by morpheme. Each morpheme is assigned a word class and given an English gloss of its meaning.

I have presented the Saxtons' translation of each fragment. Emphatically, I must declare that my English glosses of the O'othham words do not constitute a translation; they are only to provide the reader with some idea of word meaning.

Lastly, following each fragment and translation will be an analysis of that section. These analyses are of considerable importance to the thesis. For example, these sections describe marker placement, and important theoretical and methodological decisions are made and discussed as they were confronted during the writing of this chapter.

Notational Conventions

For purposes of consistency, the following abbreviations for word class will be used: ADJ (adjective), ADV (adverb),

CONJ (conjunction), DET (determiner), INTJ (interjection),
 M (mood), N (noun), PCL (particle), PERS (person indicator),
 POST (postposition), PRON (pronoun), V (verb).

In cases where the sub-class of a word is important.
 The word will have additional notation.

Fragment 1. (Saxton & Saxton 1973:1)

The Earth is Made

1) Heki huh,	sh	g	jewed
ADV	AUX	PCL	N
long ago	they are	the	earth
pi	koi	e	nahto
ADV	ADV	PERS	V
not	yet	self	done
2) shuhthagi	ia	wo'o	
N	ADV	V	
water	here	lying	
3) S-	chuhugam	am	shuhtagi
PCL	ADJ	ADV	N
stative	dark	there	water

thahm	wo'o
POST	V
above	lying

4) sh	ab	e	hiw
AUX	POST	PCL	V
they are	on	self	rubbing

5) ch	hab	wa'i	kaij
CONJ	ADV	V	N
and	thus	draw	seed

6) mo	g	wo'o	an
AUX	PCL	N	POST
that are	the	pond	on

e-	huhugith	an
PCL	V	POST
self	edging	on

7) iia
ADV
here

Free translation: Long ago, they say, when the earth was not yet finished, darkness lay upon the water and they rubbed each other. The sound they made was like the sound

at the edges of a pond.

Analysis: The first line is marked clearly with an adverbial phrase. In keeping with Hymes' principle of one verb per line, this line needs to continue until the auxiliary finds the main verb. The second line likely begins on the adjective because the adjective normally precedes its objective, and the verb is normally final in an O'othham sentence. Line three is constructed in a similar fashion. Line five is unmarked because of the verb continuing conjunction ch occurs initially. Line six is clearly connected to line five, and line seven completes this sample with a possible adverbial discourse marker.

In sum, this sample neatly forms one section of six-lines.

Fragment 2. (Saxton & Saxton 1973:6)

The Dead go to Sing and Dance below the Sunrise

1) sh	ia	jiwia	g
AUX	ADV	V	PCL
they are	here	arrive	the

Bitittoi

N

stink bug

2) k	hab	kaij	mat
CONJ	ADV	V	AUX, perfective
and	thus	said	that

3) hemu	wo	mu'itha	g
ADV	PCL	V	PCL
now	future	multiply	the

ha'ichu	thoakam
DET	N
some	living things

4) k	ia	wo	ni-
CONJ	PCLloc	PCL	PRON
and	here	future	me

keishud
V
step on

5) heg	hekaj	mani
PCL	V	AUX
to	use	I am

6) hi	pi	melthag
ADV	ADV	V
contrast	not	run before

7) ch	pi	has	ni-
CONJ	ADV	ADV	PRON
and	not	no way	me

juh
v
do

8) k	wo	ni-	tho'ibia
CONJ	PCL	PRON	v
and	future	me	rescue

9) ni	hab elith	mat
PRON	v	AUX, perfective
me	thinking	that

10) hekith	tash
ADV	ADV
sometime	long time

Free translation: Along came Black Beetle and said, "Soon the living things will multiply and crush me with their feet because I'm not a fast runner and have no possible way to save myself. I think that when someone has lived a long time he should die and go away and never come back here again."

Analysis: By content and by structure the first two lines appear to be an introductory presequencing event.

The third line is marked by the adverb hemu. The fourth and fifth lines are unmarked.

The sixth line is marked by the adverb hi. The seventh, eighth, and ninth lines are unmarked. The tenth line completes this section with the adverb hekith.

In sum, this sample has sections of two, three, and four lines.

Fragment 3. (Saxton & Saxton 1973:11)

Falling Star and Morning Star Appear

1) am	ash	hejel	wih
ADV	AUX	ADV	V
there	they are	by self	stay
g	a'al	Wia O'ohia	am
PCL	N	N	POST
the	children	place	at
2) hema	wud	cheoj	
ADV	V	N	
before	to be	male	

3) ch	hema	wud	uwi
CONJ	ADV	V	N
and	before	to be	woman

4) ch	wud	e-	wepngam
CONJ	V	PCL	N
and	to be	self	grandmother

5) ha-	hu'ul	mu'i	e
PRON	N	DET	PCL
their	aunt	many	self

sho'igchuthahim
V
causing to suffer

6) ch	ha	ge'ege'clith
CONJ	PRON	V
and	their	raising

7) k	hahawa
CONJ	ADV
and	die

Free Translation: It is said there were some children orphaned at Fine Sand Dune. One was a boy and the other a girl, brother and sister. Their mother's mother had

gone to great pains to raise them, and they there lived together.

Analysis: This sample presents a good opportunity to witness the grammatical functioning of two commonly used O'othham conjunctions. The Saxtons (1973) define the conjunction k as indicating that the previous verb is non-continuing. On the seventh line k precedes an adverb clearly ending this sample by disconnecting the verb in line six.

However on lines three, four, and six the conjunction ch is used to give unity to the section. These conjunctions may alternate in relation to discourse structure.

In sum, this sample has an introduction of one line and one segment of five lines.

Fragment 4. (Saxton & Saxton 1973:20)

The Milky Way Appears

1) heki huh	sh	hema	wud
ADV	AUX	ADV	V
long ago	they are	before	to be
al	keli		
ADJ	N		
little	old man		

2) g	keli	kch	ish
PCL	N	CONJ, V	AUX
the	old man	and be	he is

3) chum hekith	al	s-	keh'ith
ADV	ADJ	PCL	V
anytime	little	stative	scolding

g	e-	ba'amad
PCL	PCL	N
the	self	grandson

4) kush	pi	hekith	ha'ichu
AUX, CONJ	ADV	ADV	DET
and is	not	when	something

has	wuijitch	g	e-ba'amad
ADV	V	PCL	PCL, N
what	do for	the	his grandson

5) hab	masma	mat	g
ADV	ADV	AUX	PCL
thus	like	that	the

keli	wo	gahtch	g
N	PCL	V	PCL
old man	future	make a bow for the	

ali

N

child

6) wo	hapotch
PCL	V
future	make an arrow for

7) wo	shonigiwulch
PCL	V
future	play ball with

8) o	s-kehg	ha'ichu	wo
CONJ	PCL, ADJ	DET	PCL
or	good	some	future

ahgi	g	ali
V	PCL	N
tell	the	child

9) kut	heg	wehm	wo
AUX, CONJ	PRON	POST	PCL
and is	that	with	to

ge'etha

V

grow

10) k	hab
CONJ	ADV
and	thus

Free translation: Long ago, it is said, there was a little old man who hated his daughter's child. He never made anything for his grandson as an old man should, like making a bow and arrow, a racing ball, or telling something good to a child. A child should grow up with that and be like the people were then.

Analysis: The first line is clearly marked by the adverbial phrase heki huh, but the second line is unmarked. The third line is marked by the adverbial phrase chum hekith, but the fourth line is unmarked. The rather long fifth line is marked by hab masma, and the next two lines are unmarked. The eighth line has an unusual structure with an adjective in first position, but I believe that it is unmarked, and the tenth line completes this section with the adverb hab.

In sum, this sample has two sections of two lines, and one section of five lines.

Fragment 5. (Saxton & Saxton 1973:24)

The Pleiades (Homeless Women) Appear

1) bo che'is
 AUX v
 it is said

2) mo ab Waw Giwulk ab
 AUX POST N POST
 that there place there

ge chehog
 ADJ v
 strange being in a cave

3) k am kih g
 CONJ ADV v PCL
 and there living the

O'othham
 N
 person

4) ch highi wehoh ha'ichu
 CONJ M ADV DET
 and let's truely some

s- mahch
 PCL v
 stative know

5) sh	mu'i	s-kehg	ha'ichu
AUX	DET	ADJ	DET
they are	many	good	some

ha	ahgith	g	hemajkam
PRON	V	PCL	N
them	telling	the	people

6) ch	mu'i	s-kegh	nen'ei
CONJ	DET	ADJ	N
and	many	good	songs

ha	a'aga
PRON	V
them	singing

7) hab

ADV

thus

Free translation: It is said that on Baboquivari there is a cave where a man lived who knew everything. He told the people many good things and sang many beautiful songs to them, intending that the people would learn the songs and sing them for a girl who reaches puberty.

Analysis: The first line in this sample is unmarked, and the second line is connected to this by the complementizer mo. The first two lines complete the first section.

The third line begins with the conjunction k followed by the adverb am forming a marker. The fourth line uses the conjunction ch. Lastly, the seventh line completes this section with the adverb hab.

As in the thrid sample, the alternation of conjunctions is related to discourse structure requirements. In sum, this sample has one section of two lines and one section of four lines.

Fragment 6. (Saxton & Saxton 1973:27)

Where People Got Corn

1) sh	him
AUX	V
they are	going

2) k	hebai	i	cheka
CONJ	ADV	PCL	V
and	somewhere	now	reach

3) t	mu'itha	g	hemajkam
AUX	V	PCL	N
they will	multiply	the	people

4) sh	in	i	wuwha
AUX	POST	PCL	V
they are	facing	now	emerge

g	mamakai
PCL	N
the	medicine men

5) ch	s-	chu	a'amichuththam
CONJ	PCL	PCL	V, N
and	stative	transitive	solve, one who does

6) mu'ijj	ha'ichu	has	wua
DET	DET	ADV	V
many	somekind	what	lay down

7) hab
ADV
thus

Free translation: As time passed, the population increased. Medicine men and wise men appeared. Many of them could do things Elder Brother did.

Analysis: The first line of this sample does not have adverbial marking, but perhaps that is unimportant because

its place in the narrative is distinguished by the fact that it is the first line.

The second line uses the conjunction k and the adverb hebai creating a clear marker but lines three, four, five, and six are unmarked. The seventh line ends this section with the adverb hab.

In sum, this sample has an introduction of one line and a section of five lines.

Fragment 7. (Saxton & Saxton 1973:28)

Corn Comes Courting the Girl

1) sh	wenog	pi	ha'ichug
AUX	ADV	ADV	V
he is	at that time	not	existing

g	Huhni
PCL	N
the	corn

2) im	huh	hebai	mehk
PCL	ADV	ADV	ADV
here	remote	where	far

si'al	wecho	wud	kihham
N	POST	V	N
east	under	be	dwellers

3) ch	am	e'esha	g
CONJ	ADV	V	PCL
and	there	plant	the

huhni
N
corn

4) ch	ne'ichuth
CONJ	V
and	sing

5) sh	heg	hekaj
AUX	PCL	V
he is	a	using

6) hab	s-kehg	wushke
ADV	ADJ	V
thus	good	emerge

7) ch	s-kehg	babhe
CONJ	ADJ	V
and	good	ripen

Free translation: At that time Corn was not around. He lived far to the east where he planted corn and sang for it. Because he sang for it, it came up and ripened well.

He heard about the woman who was ready for marriage but wouldn't marry anyone.

Analysis: The first line indicates a transition into the time before corn. The second line is clearly marked by a series of adverbial particles including the adverbial phrase huh hebai. The third and fourth lines use the conjunction ch, so they are not counted as marked. The fifth line is unmarked.

The sixth line is marked by the adverb hab, and the seventh line is attached to it by the conjunction ch.

In this particular sample, a marker was not found to complete this section within the six-line limit. However, from the Saxton's translation and from the study of the O'othham words, I can deduce that a major transition in meaning occurs here, and although I did not find a marker to complete this section I'm calling this section complete.

In sum, this sample has a section of one line, of four lines and of two lines.

Fragment 8. (Saxton & Saxton 1973:36)

Corn Reveals His Powers

t	am
AUX	POST
us is	at

1) ha hekaj	jiwia	g	Huhni
ADV	V	PCL	N
because of	arrive	the	corn
2) k	am	hema	bek
CONJ	AUX	ADV	V
and	he is	before	taken
3) am	si	elpig	
AUX	PCL	V	
he is	very	removing skin	
4) k	si	i	kegch
CONJ	PCL	PCL	V
and	very	now	arrange
g	chiniwoj		
PCL	N		
the	whiskers		
5) hab	haijch		
ADV	V		
thus	saying		
6) bo	masma	e-	ko'a
AUX	ADV	PCL	V
that	like	self	eaten

ihtha	am	ni-	kih
PRON	POST	N	N
this	at	my	house

am
POST
at

7) sh	wehmt	g	kihkam
AUX	V	PCL	N
he is	helped	the	dwellers

8) k	huh
CONJ	ADV
and	remote

Free translation: Right away Corn came and took one and shucked it cleaned off the whiskers saying, "This is eaten like this at my home." Then the people ate the corn.

Analysis: The presence of the strong adverbial phrase ha hekaj indicates that this sample begins with that phrase and that the first two words are incidental. The second and third lines are unmarked, and the fourth line is marked by adverbs but by content is closely related to the first three lines.

The fifth line again begins a new section with the adverb hab. And the sixth and seventh lines are unmarked. Lastly, the eighth line ends this sample with the adverb huh.

In sum, this sample can be clearly divided into sections of four and of three lines.

Fragment 9. (Saxton & Saxton 1973:39)

Did They Give Corn The Girl?

1) neh	t	ia'i	ha
INTJ	AUX	ADV	PRON
so	us is	right now	them
chehgi	g	e-	mahchig
v	PCL	PCL	N
find	the	self	knowledge
2) k	ith	amied	hab
CONJ	PRON	POST	ADV
and	this	from	thus
em-	ahg		
PRON	v		
you	saying		

3) na'as	g	oks	wo
ADV	PCL	N	PCL
maybe	the	girl	future

i	ni-	wehmt
PCL	PRON	V
now	me	helped

4) nt	heg	wui	wo
AUX	PRON	POST	PCL
will I	that	to	future

gei	wehpeg
V	ADV
fall	first

5) tp	wo	sha	ni-
AUX	PCL	PCL	PRON
he will	future	if	me

wehmt
V
help

6) k	wud	si	shel
CONJ	AUX	PCL	N
and	be	real	permission

mant

AUX, perfective

that

7) wo	bei	g	uwi
PCL	V	PCL	N
future	get	the	woman

8) neh

INTJ

so

Free translation: In this way he showed them his knowledge, thinking, "Maybe the woman will help me. I'll appeal to her first. If she helps me I'll surely get the girl."

So he did,

Analysis: This sample begins clearly with the injection neh. The second line is unmarked. the third line is clearly marked with the interrogative adverb na'as. The fourth, fifth, sixth, and seventh lines are unmarked, and the eighth line clearly ends this section with the interjection neh.

In sum, this sample has a section of two lines and a section of five lines.

Fragment 10. (Saxton & Saxton 1973:41)

The People Plant Corn

1) t	amjed	him
AUX	POST	V
us is	about	moving

2) k	ab	i	e
CONJ	PCL, locative	PCL	PCL
and	about	now	self

ai
v
reach

3) sh	gn	huh
AUX	PCL, locative	V
they are	there	end

4) heki huh	behi'at	g	s-kehg
ADV	V	PCL	ADJ
long ago	taken	the	good

jewed
N
land

5) hegam	mo	s-	nenenashshani
PRON	AUX	PCL	v
those	that	stative	were alert
6) ch	ep	s-	wapagima
CONJ	ADV	PCL	v
and	again	stative	were industrious
7) ban	hi'i	shum alo	ko'ito
N	PCL	ADV	v
Coyote	contrast	almost	eating
g	e-	kaichka	
PCL	PCL	N	
the	self	seed grain	
8) eda	ep		
ADV	ADV		
then	again		

Free translation: After that, a year passed. those who were alert and industrious had already taken the good land.

Coyote, however, had almost eaten up his seed. Being lazy and sleepy-heeded,

Analysis: The first three lines are unmarked and will be taken as an introductory section. The fourth line is

clearly marked with the adverbial phrase heki huh. The fifth line is unmarked, and the sixth line is connected by the conjunction ch. The seventh line is unmarked, and the eighth line completes this section with the adverbial phrase eda ep.

In sum, this sample has a section of three lines and a section of four lines.

Fragment 11. (Saxton & Saxton 1973:45)

How the Flood Came

am	ash
ADV	AUX
there	he is

1) huh	hebai	hema	ep
ADV	ADV	DET	ADV
remote	somewhere	one, a	also

kih	g	o'othham
V	PCL	N
living	the	person

2) kch	hab	wa	ep
CONJ	ADV	M	ADV
and	thus	expected	again

ha'ichu	s-	mahch
DET	PCL	V
some	stative	knowing

3) kush	g	cheog	epai
CONJ, AUX	PCL	N	ADV
and, he is	the	boy	also

nuhkuth
V
take care of

4) k	ge'el
CONJ	V
and	raise a child

5) kush	s-kehg	wud	wiapo'oge'el
CONJ, AUX	ADJ	V	N
and, he is	good	to be	young man

6) k	ep	wehs	ha'ichu
CONJ	ADV	DET	DET
and	also	all	some

ab ab ulini
V
have a skill

7) m	an	he'ekia	i
AUX	POST	DET	PCL
that	there	many	now
ha'ichu	wud	cheoj	himthag
DET	V	N	ADJ
some	to be	boy	good
8) kush	am	hab	i
CONJ, AUX	POST	ADV	PCL
and, they are at		thus	now
kaij	g	keli	mapt
V	PCL	N	AUX, perfective
said	the	old man	that
9) ia'i			
ADV			
right now			

Free translation: Somewhere there lived another wise man. He had a son he raised carefully, and he was a fine young man.

One day the old man said, "You have grown up here,

Analysis: The first two words are transitional. This sample begins with the adverbial phrase huh hebai. The

second line is bound to the first line by the conjunction kch. The third, fourth, and fifth lines are unmarked.

The sixth line is marked by the adverb ep and the conjunction k. The seventh and eighth lines are unmarked and the ninth line ends the section with the adverb ia'i.

In sum, this sample has one section of five lines and one section of three lines.

Fragment 12. (Saxton & Saxton 1973:46)

He Goes to Court the well-trained Girl

1) sh	eda	hegai	chehia
AUX	ADV	PRON	N
he is	yet	that	girl

ohj	kelit
N	V
father	grow old

2) k	pi	hahawa	wipi'a
CONJ	ADV	ADV	V
and	not	afterward	hunt

3) ch	ish	pi	ha
CONJ	AUX	ADV	PRON
and	they is	not	them

chuhhugga

v

having meat

4) kush	haha	wash	jiwia
CONJ, AUX	ADV	ADV	v
and they are	afterward	just	arrive

g	wiapo'oge'el
PCL	N
the	young man

5) k	g	huawi	chuhhug
CONJ	PCL	N	N
and	the	deer	meat

u'apa

v

bring

6) k	am	i	mah
CONJ	ADV	PCL	v
and	there	now	give

g	keli
PCL	N
the	old man

7) k	hab
CONJ	ADV
and	thus

Free translation: By then the girl's father was too old to hunt, so he had no meat. The young man came, bringing mule deer meat, and gave it to the old man, saying,

Analysis: This sample begins with an unmarked line. The conjunction k and the adverb pi indicate that the second line is marked. The third, fourth, and fifth lines are unmarked. The sixth line is marked similar to the second line, with the conjunction k and the adverb am. The seventh line completes this section with the conjunction k and the adverb hab.

In sum, this sample has two one-line sections interspersed by a section of four.

Fragment 13. (Saxton & Saxton 1973:47)

One Shouldn't Show off his Skills

1) bash	kaij	g	keli
AUX	V	PCL	N
he is	said	the	old man

2) kush	hab	epai	kaij
CONJ, AUX	ADV	ADV	V
and, is	thus	also	said

g	wiapo'oge'el
PCL	N
the	young man

3) hah	sho'ig	al	keli
INTJ	ADJ	ADJ	N
ah	humble	little	old man

pi	apt	has	e
ADV	ADJ	ADV	PCL
negative	good	what	self

juh
V
do

4) k	wo	s-	mai
CONJ	PCL	PCL	V
and	future	stative	find

g	ni-	chu'ichig	bapt
PCL	PRON	N	AUX, perfective
the	my	plan	you will

5) am	wash	wo	chu'ick
ADV	ADV	PCL	V
there	just	future	ask

mapt

AUX, perfective

you are

6) wud	wo	wiapo'oge'elk
PCL	PCL	V
equal to	future	being young

7) kupt	ni-	wehm	wo
CONJ, AUX	PRON	POST	PCL
and you after me		with	future

githahim

V

scout the enemy

8) kupt	mu'i	wo	e
CONJ, AUX	DET	PCL	PCL
and was	many	future	itself

pihchuth

V

causing trouble

9) k hahawa
 CONJ ADV
 and afterward

Free translation: When he said this, the young man said,
 "Ah, poor little old man, theirs nothing you can do to
 find out what I'm skilled at. If only you were a young
 man, you could go hunting with me, or go with me to battle.
 If you had the endurance you could learn what skills I
 have.

Analysis: This sample begins with a two-line introductory
 section. The third line is marked by the interjection
hah. The fifth line is marked by the adverbs am and wash.
 The sixth, seventh, and eighth lines are unmarked. The
 adverb hahawa ends this sample.

In sum, the sections consist of two, two, and four
 lines.

Fragment 14. (Saxton & Saxton 1973:49)

They Gave Him the Girl

kush	1) am	i	amhugi
CONJ, AUX	POST	PCL	V
and they are	there	now	to end action

sh

AUX

they are

2) hab

hahawa

kaij

g

ADV

ADV

V

PCL

thus

afterward

spoke

the

keli

N

old man

3) mo

ia'i

s-

ap'e

AUX

ADV

PCL

V

that

right now

stative

be good

4) ahpi

apt

wo

hohnt

PRON

AUX

PCL

V

you

are

future

marry a woman

g

ni-

alithag

PCL

PRON

N

the

my

daughter

5) mapki

ahpi

wehoh

s-

AUX

PRON

ADV

PCL

that

you

truly

stative

mahch	g	o'othham	himthag
V	PCL	N	N
know	the	people	ways

6) wehoh	o	wa
ADV	AUX	V
truely	is	known

7) pi	ant
ADV	PRON
not	I

Free translation: The fourth night passed. Then the man said, "It's all right. You may marry my daughter since you evidently know the customs. It's true. I can't.

Analysis: The first word in this sample is a continuation from the previous pages of text, and so it is here apart from this analysis. The first line of this sample is an introduction to the second line.

The second line is marked by the adverbial phrase hab hahawa. The third, fourth, and fifth lines are unmarked.

The sixth line is marked by the adverb wehoh, and the section is quickly ended by the adverb of negation pi that begins the seventh line.

In sum, this sample has two sections of one line interspersed by a section of four lines.

Fragment 15. (Saxton & Saxton 1973:51)

She Refuses to leave Home

kush	1) hab	kaij	g
AUX	ADV	V	PCL
they are	thus	spoke	the
uwí	mápt		
N	AUX, perfective		
woman	that		
2) gamai	wo	him	
ADV	PCL	V	
over there	future	going	
3) k	wo	ha	nei
CONJ	PCL	PRON	V
and	future	them	sing
g	e-	hajuni	
PCL	PCL	N	
the	self	kinfolk	
4) pi	ant	am huh	wo
ADV	PRON	ADV	PCL
negative	I	way over	future

hih

V

move

5) pi	ani	ha	mahch
ADV	PRON	PRON	V
not	I'm	them	know

g	m-hajuni
PCL	N
the	kinfolk

6) kupt	hems	pi	wo
CONJ, AUX	M	ADV	PCL
and are	maybe	not	future

ni	hohhoi
PRON	V
me	enjoy

7) kunt	pi	has	ni-
CONJ, AUX	ADV	ADV	PRON
and they are	not	what	me

mahch

V

knowing

8) k	am	huh
CONJ	ADV	ADV
and	there	remote

Free translation: The woman said, "Go ahead and see your relatives, but I won't go. I don't know your relatives and maybe they won't like me. I don't know if I could live with you all."

Analysis: The introductory line is marked, and the perfective auxiliary mapt is affixed to the end of this line. The second line is marked by the adverb gamai, and the third line is unmarked.

The fourth line is marked by the adverb pi line initially. Also, the adverbial phrase am huh occurs line internally. On the whole, the fourth line is transitional in its content. In addition, the adverb pi begins the fifth line and isolates the fourth line.

The sixth and seventh lines are unmarked and the eighth line completes this sample with the adverbial phrase am huh.

In sum, this sample has two sections of one line interspersed by a section of two lines and completed by a section of three lines.

Fragment 16. (Saxton & Saxton 1973:53)

He abandons his Child in Anger

1) neh	bash	kaijhim
INTJ	AUX	V
so	they are	saying

2) ch	am	i	wohthk
CONJ	ADV	PCL	V
and	there	now	saying

g	ali	tohnk	wehbig
PCL	N	N	POST
the	child	hill	behind

3) k	gm	huh	hih
CONJ	ADV	ADV	V
and	over there	remote	move

4) kush	gd	huh	wash chum
AUX	PCL, locative	ADV	ADV
and he is	over there	remote	as soon as

jiwia
V
arrive

5) sh	hab	ha hekaj	chei
AUX	ADV	ADV	V
he is	thus	right away	saying

g	keli
PCL	N
the	old man

6) shahpt	juh	g	ali
ADJ	V	PCL	N
what	do	the	child

7) k	wash	hejel	jiwia
CONJ	ADJ	ADJ	V
and	only	own self	arrive

8) heki
ADV
already

Free translation: As soon as he arrived the old man said,
"What did you do with the child, that you have come alone?
I already know what happened to you."

Analysis: The sample begins with the interjection neh on the first line. The second line connects to the first by the conjunction ch. The third line is marked by the adverbial phrase gm huh, and the fourth and fourth, fifth, sixth, and seventh lines are unmarked.

The eighth line completes this sample with the adverb heki.

In sum, this sample has one section of two lines and one section of five lines.

Fragment 17. (Saxton & Saxton 1973:55)

A Flood Comes

kush	1) hab	kaij	hegai
CONJ, AUX	ADV	V	PRON
and is	thus	said	that

keli
N
old man

2) heg	at	wo	i
PRON	PRON	PCL	PCL
that	he	future	now

ge'etha	shuhthagi
V	N
grow	water

3) k	wo	ma'ish	wehs
CONJ	PCL	V	DET
and	future	cover	all

ihtha	jewed
PRON	N
this	earth

4) neh	kush	wa	wehoh
INTJ	CONJ, AUX	M	ADV
so	and is	expect	truly

hab	e	juh
ADV	PCL	V
thus	self	do

5) kush	ha'ichu	am	i
CONJ, AUX	DET	POST	PCL
and is	some	there	now

s-	mai	mat
PCL	V	AUX, perfective
stative	find	that

6) pi	hebai	wo	e
ADV	ADV	PCL	PCL
not	somewhere	future	self

thi'ibia
V
rescue

7) k	ash	am	thatha
CONJ	AUX	POST	v
and	is	there	arrive

t-Si'ihe	wui
N	POST
Elder Brother toward	

8) k	am	chu'ichk
CONJ	ADV	v
and	there	ask

Free translation: The old man said, "The water will increase and cover this whole land."

And that is just what happened. No one could find a place to escape to. So they came to Elder Brother and asked where they would be safe.

Analysis: The first three lines of this sample are marked by the adverb hab. The fourth line is clearly marked by the interjection neh. The fifth line is unmarked with the perfective auxiliary mat affixed to the end.

The sixth line is marked by the adverbial phrase pi hebai, and the seventh line is unmarked. The eighth line completes this section with the adverb am.

In sum, this sample has one section of three lines and two sections of two lines.

Fragment 18. (Saxton & Saxton 1973:59)

I'ittoi and Coyote make more People

1) neh	sh	an	oiopo
INTJ	AUX	POST	V
so	are	there	going

g	Ban
PCL	N
the	Coyote

2) k	ash	am	huh hebai
CONJ	AUX	POST	ADV
and	is	there	remote

i	thadhaiwua
PCL	V
now	sit down

3) kush	hab	kaij	g
CONJ, AUX	ADV	V	PCL
and is	thus	spoke	the

t-Si'ihe

N

Elder Brother

4) ia	att	wo	ha'i
ADV	PRON	PCL	DET
here	we	future	some

ep	ha	o'othhamt
ADV	PRON	VERB
again	them	make people

5) kush	g	bith	am
CONJ, AUX	PCL	N	POST
and is	the	mud	there

i	bek
PCL	V
now	taken

6) am	i	ha	o'othhamt
ADV	PCL	PRON	V
there	now	they	make people

7) sh	am	huh hebai	ha
AUX	POST	ADV	PRON
is	at	far away	they

toa
v
put

8) kush	hab	kaij	g
CONJ, AUX	ADV	V	PCL
and is	thus	spoke	the

t-Si'ihe

N

Elder Brother

9) that

ADV

within

Free translation: So Coyote went around with Elder Brother and sat down somewhere. Elder Brother said, "Lets make some more people." So they took some clay and made people. They put them somewhere and Elder Brother said, "In four days they will come alive."

Analysis: The first line is clearly marked by the interjection neh, and the second and third lines are unmarked.

The fourth line is marked by the adverb ia and the fifth line is unmarked.

The sixth line is marked by the adverb am, and the seventh and eighth lines are unmarked. The ninth line completes this section with the adverb that.

In sum, this sample has two sections of three interspersed by a section of two.

Fragment 19. (Saxton & Saxton 1973:65)

He's Appointed to Study the Stars

sh	i'ajed	1) heb huh	hih
AUX	ADV	ADV	V
is	from now	somewhere	go

g	t-Si'ihe
PCL	N
the	Elder Brother

2) t	ia	wih	g
AUX	ADV, locative	V	PCL
is	there	stay	the

Ban
N
Coyote

3) k	g	o'othham	ha
CONJ	PCL	N	PRON
and	the	people	them

wehm	nahnko	ha'ichu	wua
POST	ADV	DET	V
of	differently	some	doing

4) ch	s-	hehkig	nash
CONJ	PCL	DET	AUX, question
and	stative	be happy	are

5) pi	chum hekith	g	hemajkam
ADV	ADV	PCL	N
not	anytime	the	people

ab	ihm
ADV, locative V	
here	called by relationship

6) ch	gegosith	sh	g
CONJ	V	AUX	PCL
and	fed	is	the

mamakai
N
medicine man

7) hab
ADV
thus

Free translation: Elder Brother had gone away. But Coyote stayed here and was happy doing various things with the people, because they always greeted him by "Uncle" and fed him.

Analysis: The first two words of this sample are small transitions or pre-sequencing events. The adverbial phrase heb huh marks a four line introductory section. The fifth line is marked by the adverbial phrase pi chum hekith. The sixth line is unmarked, and the seventh line completes this sample with the adverb hab.

In sum, this sample has one section of four lines and one section of two lines.

Fragment 20. (Saxton & Saxton 1973:67)

Coyote Scatters the Stars

bo	che'is	mo
AUX	V	AUX
they thus	saying	that

1) waikpa	hemajkamag	gn	huh
ADV	V	PCL, locative	ADV
three places	being people	over there	remote

t-	thahm	iia	ch
PRON	POST	ADV	CONJ
our	above	here	and

in	huh	t-	wecho
ADV	ADV	PRON	POST
here	remote	our	under

2) sh	an	ha'ichug
AUX	POST	V
they are	on	existing

3) hegam	mo	wud	si
PRON	AUX	V	ADJ
those	that	be	real

mamakai
N
medicine men

4) hab	masma	mo	g
ADV	V	AUX	PCL
thus	be	that	the

Ban
N
Coyote

5) sh	g	Ba'ag	gm
AUX	PCL	N	PCL, locative
is	the	Eagle	over there

huh	wud	kihkam	t-
ADV	V	N	PRON
remote	be	dwellers	our

thahm

POST

above

6) sh	bagat
AUX	V
they are	angry

7) heg	hekaj	mo	g
PCL	V	AUX	PCL
a	use	that	the

Ban

noun

Coyote

8) ia	chum
ADV	ADV
right now	anytime

Free translation: It is said that there above us are three habitations---above us, here, and below us. And once there are mighty medicine men like Coyote.

Eagle was one who lived up there. One day he became angry because Coyote was always noisy.

Analysis: This sample has a strange structure, consisting of very long and very short lines. The introductory section is three lines long. The fourth line is marked by the adverb hab. The fifth, sixth, and seventh lines are unmarked. The eighth line completes this section with the adverb ia.

In sum, this sample has one section of three lines and one section of four lines.

CHAPTER V

RESULTS

The first step in this analysis is the tabular presentation of the results of each of the twenty analyses.

Table IV. Number of sections and lines in O'othham narrative fragments

fragment	sections	lines	total
1	1	6	6
2	3	2, 3, 4	9
3	2	1, 5	6
4	3	2, 2, 5	9
5	2	2, 4	6
6	2	1, 5	6
7	3	1, 4, 2	7
8	2	4, 3	7
9	2	2, 5	7
10	2	3, 4	7
11	2	5, 3	8
12	3	1, 4, 1	6
13	3	2, 2, 4	8
14	3	1, 4, 1	6
15	4	1, 2, 1, 3	7

16	2	2, 5	7	
17	3	3, 2, 2	7	
18	3	3, 2, 3	8	
19	2	4, 2	6	
20	2	3, 4	7	
Total number of sections			-----	
			140	

A table of the percentages of each type of section will present comparable information for consideration. Since these sections were treated independently, the following table of percents will not add up to exactly 100%. However, the 98.3333% that they add up to is reasonably close and will provide the reader with comparable information. Sections of six lines account for 6/120. Sections of five lines account for 30/200. Sections of four lines account for 40/160. Sections of three lines account for 27/120. Sections of two lines account for 28/120. Sections of one account for 9/120.

Table V. Frequency of section types

section type	number of sections	percentage of total
6	1	5.%
5	6	15.%
4	10	25.%
3	9	22.5%
2	14	23.333%
1	9	7.5%

In order to determine which types of section occur furthestest from and closest to the mean, a 90% confidence interval can be constructed using the above percents. This interval will provide some indication beyond sole opinion as to which of these sections occur closet to the mean.

For purposes of this test, we must assume that this population is normally distributed, and since standard deviation is not known I will use a table value.

the number = 6

sample mean = 16.388833

the sample deviation = 8.6065759

table value t 5, .05 = 2.015

$16.388833 \pm 2.015 (8.6065759/\text{sq } 6)$

2.015 (8.6065759/2.449489)

2.015 (3.51362)

16.388833 \pm 70799462

9.3088833) u (23.468779

From the above interval, we know that the true mean is within the boundaries of 9.3088833 and 23.468779. Of the percentages of section types presented earlier, only the four line sections appear larger than the mean. In addition, two line sections appear more frequently than three or five line sections. And the asymmetrical sections of one and six lines are below 9.3088833.

Testing for goodness of fit

In order to determine whether the section types could be occurring evenly, I tested for goodness of fit. If I found that I could reject the null hypothesis that the expected frequencies closely match the observed frequencies, ~~then~~ that shows that the section types do not occur evenly but possibly occur in a pattern.

For the first test, the expected table was composed of the total number of sections divided by six. For the second test, the expected table was composed of the total number of sections divided by five.

Table VI. test for goodness of fit

Section	observed	expected
6	1	8.16
5	6	8.16
4	10	8.16
3	9	8.16
2	14	8.16
1	9	8.16

	49	
o-e	(o-e) sq	(o-e) sq / e
7.16	51.2656	6.282
2.16	4.665	.572
1.84	3.3856	.4149
.84	.7056	.0864
5.84	34.1056	4.1796
.84	.7056	.0864
		<hr/>
		11.6213

Since the computed value of is 11.6213. The possibility that this data is evenly distributed is between 2.5% and 5%. Since this value is very small I will reject the null hypothesis that the sample data is evenly distributed.

However, the largest part of the computed value of 11.6213 comes from the section type six. If the section type six is removed from consideration.

Table VII test for goodness of fit

Section	observed	expected
5	6	9.6
4	10	9.6
3	9	9.6
2	14	9.6
1	9	9.6

	48	
o-e	(o-e) sq	(o-e) sq / e
-3.6	12.96	1.6
.4	.16	.0166666
-.6	.36	.0375
4.4	19.36	2.0166667
-.6	.36	.0375

		3.7083327

Now the computed value is 3.7083327. The possibility that this data is evenly distributed is between 5% and 25% making it very likely that the data is evenly distributed.

Since I will accept my own description that only one section of six lines was found, the results of the first table are more important. However, the dramatic results of table seven warrant further investigation.

CHAPTER VI

CONCLUSION

The following conclusion is in three parts. The first part simply summarizes the thesis. The second part discusses the results and makes the critical conclusion of the thesis. The third part discusses the relationship of the results of this thesis to the wider field of linguistic anthropology.

Summary

This thesis examined the possibility of a regulatory principle consisting of elementary particles existing in the transcribed materials of Native American narratives collected in the 1930s. This thesis emphasizes the importance of this discovery because of the possibility that the placement of these particles affects the narratives. Lastly, this thesis by objective means and statistical analysis attempted to determine the likelihood of the existence of this regulatory principle.

Critical to understanding this possible regulatory principle was understanding Hymes' perception. Hymes (1981) defined a type of particle as representing this principle.

In addition, Hymes defined line and verse construction. Critically, Hymes predicted that narratives from Southwestern cultures would have a significant number of four-line verses. In order to test the possible existence of ethnospecific verse numbering, the following steps were taken. The O'othham culture was selected for examination. The cultural and linguistic resources made O'othham narratives a good choice for study.

Next, the concept of an elementary particle marker was further defined. Definitions from Virginia Hymes (1986) and Woodbury (1986) were used in addition to the definitions of Hymes. Then, some particularities of O'othham grammar were explained. In general, elementary particle markers were defined as adverbial.

Other methodological considerations included line definition and narrative choice. The decision was made to analyze twenty narrative fragments.

After each fragment had been analyzed morpheme by morpheme, the results were tabulated. The tabulated results were converted to percents and a confidence interval was constructed to determine significant levels of the occurrence of elementarily particle marked sections of one line, two lines, three lines, four lines, five lines, and six lines. Also, a tests of goodness of fit were used to determine if the occurrence of numerical section types could have occurred equally.

Results

This thesis looked for two structural features. It looked for a significant number of four line verses, and second it looked for a symmetry of form. Hymes (1986) reminded us that we should remember that ethnospecific numbering does not limit a narrative to the use of four for Southwestern cultures or to three or five for Chinookan cultures but that great variation exists.

This thesis does find significant numbers of four-line verses along with great variation. The discovery of significant amounts of four-line verses or sections does indicate that it is likely that Native American literature has a regulatory principle represented by elementary particles.

On the second aspect, the high percentages of two-, three-, and five-line verses along with the low percentage of one-, and six-line verses indicates a symmetry of form within these narratives. However, the small size of the sample leaves open the possibility that the distribution of sections is even or asymmetrical.

Implications

This study does indicate that the elementary particles do represent something of a regulatory principle for Native American narratives. This study does demonstrate some

elementary particle structuring on the verse level.

However, this study does nothing to either support or refute Hymes' (1981) claim of a much greater formality and structuring within these narratives. Hymes' concept of form meaning covariance often extends over several verses into greater structural concepts of stanzas and scenes.

To a limited extent, this study could be an aid for the interpretation of Native American narratives. The placement of the anaphoric particle indicates which lines of the narrative control the meaning of the verse. A strictly lexical interpretation of these narratives of the type that Rice (1992) makes does not seem adequate.

Finally, the narrative interpretations of Hymes dependent upon these particles forming verse dramas are after this study still very speculative. Not only for the lack of evidence of this higher structuring but for the possibility of simultaneous forms of structuring coexisting within these narratives unrepresented by the transcriptions are Hymes' narrative interpretations very speculative.

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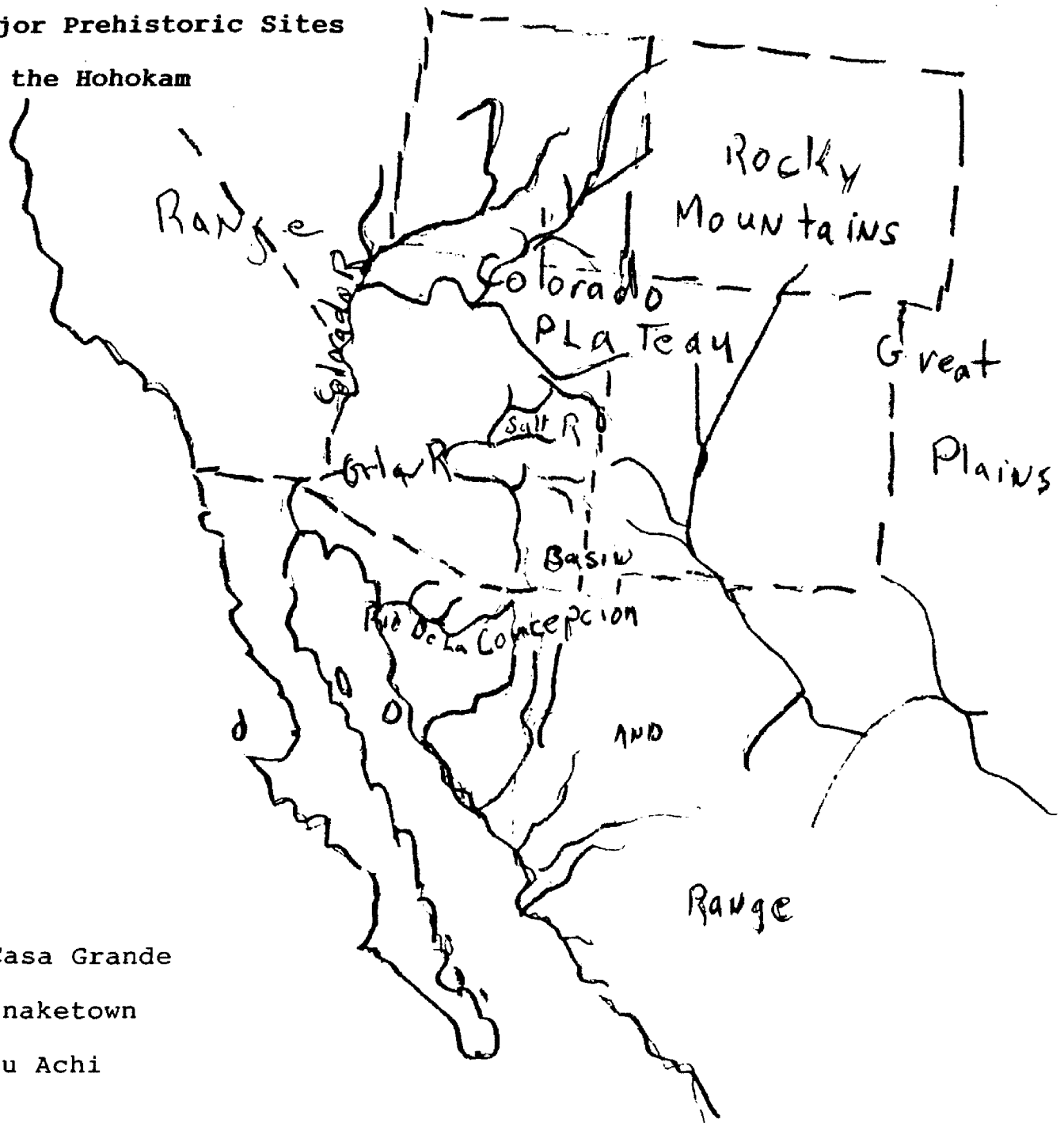
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APPENDIXES

Map I

Major Prehistoric Sites of the Hohokam

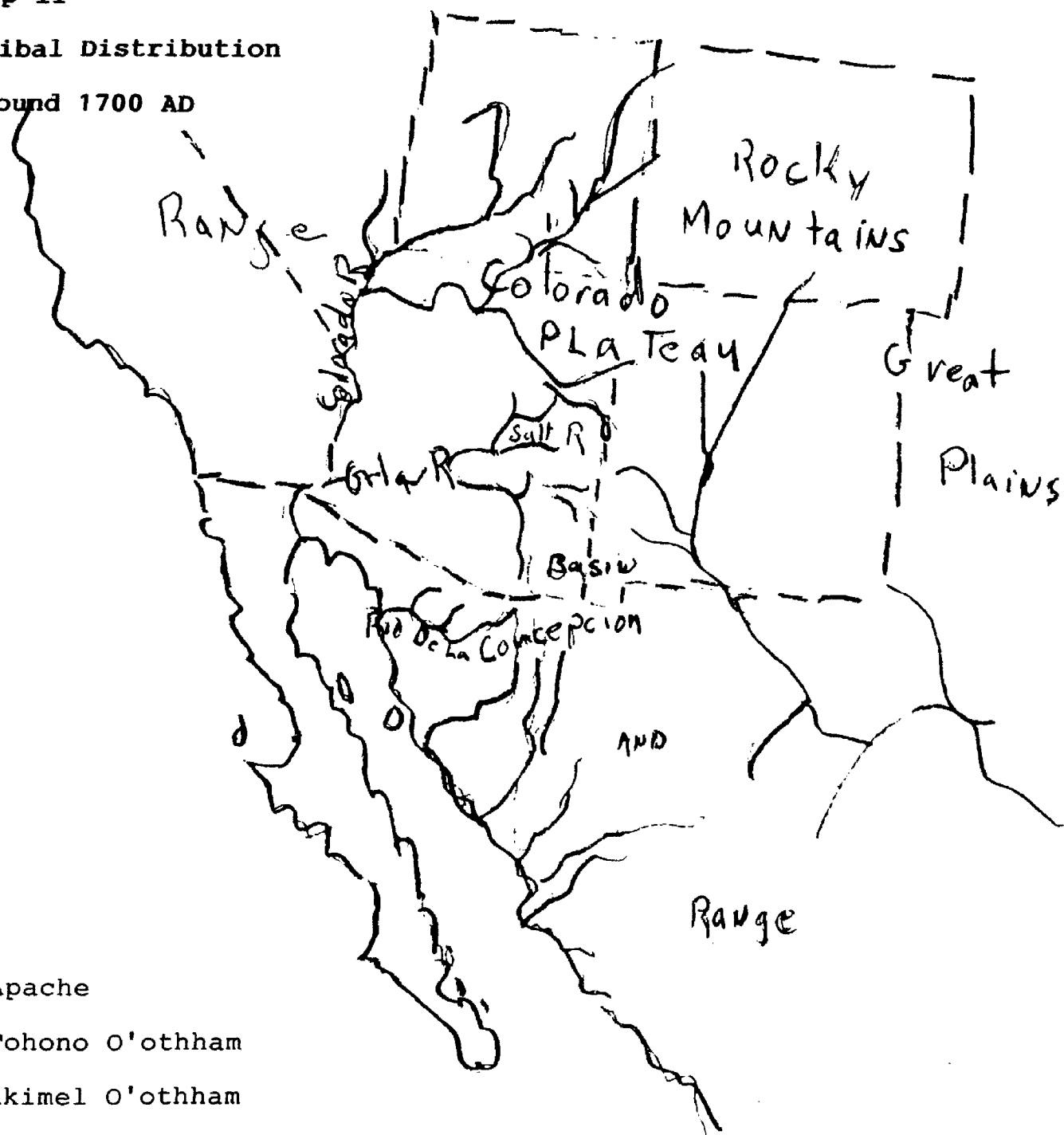


- 1) Casa Grande
- 2) Snaketown
- 3) Gu Achi

Map II

Tribal Distribution

around 1700 AD



- 1) Apache
- 2) Tohono O'othham
- 3) Akimel O'othham
- 4) Akimel O'othham
- 5) Yaqui

Map III

Present Location of
O'othham Reservations

